We claim:

1. A phoropter for determining a vision prescription comprising:

individually addressable electro-active lenses in series;

a housing to support the series of electro-active lenses; and

a power source connected to each of the electro-active lenses to apply an electric potential across each electro-active lens and create a positive, negative, or neutral optical power in each electro-active lens.

2. The phoropter of claim 1 comprising at least three electro-active lenses in series.

3. The phoropter of claim 2 comprising at least a fourth lens.

4. The phoropter of claim 3 wherein the fourth lens is a conventional lens.

5. The phoropter of claim 3 wherein the fourth lens is an electro-active lens.

6. The phoropter of claim 5, wherein each electro-active lens is finely-pixelated and has an optical power between -2.50 D to +2.50 D.

7. The phoropter of claim 5, further comprising a fifth electro-active lens, wherein four electro-active lenses are fixed pattern pixelated electro-active lenses and each one of the four fixed pattern pixelated electro-active lenses has an optical power of one of -2.25D, 0 D, or +2.25 D and wherein the fifth electro-active lens is a finely pixelated electro-active lens and has an optical power of between
-1.0 D to +1.0 D.

8. The phoropter of claim 5, further comprising a fifth and a sixth electro-active lens, wherein each of four electro-active lenses has an optical power of one of -2.25D, 0 D, or +2.25 D and wherein the fifth electro-active lens has an optical power of one of -0.75 D, 0 D and +0.75 D,

and wherein the sixth electro-active lens has an optical power of one of -0.25 D, 0 D and +0.25 D.

9. The phoropter of claim 3, wherein one electro-active lens has an optical power of one of -0.25 D, 0 D and +0.25 D, one electro-active lens has an optical power of one of -0.75 D, 0 D and +0.75 D, one electro-active lens has an optical power of one of -2.25D, 0 D, or +2.25 D, and one lens has an optical power of one of -6.75, 0 D, or +6.75 D.

10. The phoropter of claim 1 further comprising a lens having an optical power of one of -0.125 D, 0 D, and +0.125 D.

11. The phoropter of claim 1, wherein the phoropter electronically records the vision prescription of a patient.

12. The phoropter of claim 1, wherein the electro-active lenses are finely pixelated.

13. The phoropter of claim 12, wherein individual pixels of the electro-active lenses are individually addressable.

14. The phoropter of claim 1, wherein the electro-active lenses are fixed pattern pixelated electro-active lenses.

15. The phoropter of claim 1, comprising two series of electro-active lenses, wherein each series of electro-active lenses is arranged so that one eye of a patient can look through one series of electro-active lenses while the other eye can simultaneously look through the second series of electro-active lenses.

16. The phoropter of claim 1, comprising at least one lens for the measurement of astigmatic error.

17. The phoropter of claim 16, wherein the at least one lens for the measurement of astigmatic error comprises an electro-active lens having elliptically symmetric electrodes.

18. The phoropter of claim 16, wherein the at least one lens for the measurement of astigmatic error comprises a finely pixelated electro-active lens to provide cylinder correction.

19. The phoropter of claim 1 comprising at least one lens for the measurement of prismatic error.

20. The phoropter of claim 1 further comprising a wave front analyzer coupled to the phoropter to measure a vision prescription for higher order aberrations, and correct the aberrations with at least one electro-active lens.

21. The phoropter of claim 1, wherein each electro-active lens has one of a fixed positive optical power, a fixed negative optical power, or no optical power, depending on the distribution of the electrical power applied to each electro-active lens.

22. A method for determining a vision prescription using an electro-active phoropter comprising individually addressable electro-active lenses in series and a power source connected to each of the electro-active lenses to individually create one of a positive, negative, or neutral optical power in each electro-active lens comprising:

providing electrical power to at least one electro-active lens to produce a net optical power in the series of electro-active lenses other than 0 diopters;

individually varying the electrical power to each of the electro-active lenses to create an incremental change of net optical power to a patient's eyes until a desired level of vision correction is achieved; and

recording the vision prescription that corresponds to the net optical power at the desired level vision correction.

23. The method of claim 22 wherein the vision prescription is at least partly determined by input received from the patient.

24. The method of claim 22 wherein the electro-active lenses comprise fixed pattern pixelated electro-active lenses.

25. The method of claim 22 wherein the electro-active lenses comprise finely-pixelated electro-active lenses.

26. The method of claim 25 further comprising individually varying the electrical power to each pixel of the finely pixelated electro-active lenses.

27. The method of claim 22 wherein the incremental change of net optical power is 0.25 diopters.

28. The method of claim 22 wherein the vision prescription is recorded to a memory storage device.

29. The method of claim 22, wherein the vision prescription is recorded in a memory of a pair of electro-active spectacles.

30. The method of claim 22, wherein the vision prescription is recorded on a document printed by the phoropter.

31. The method of claim 22 further comprising moving a conventional lens into or out of the series of lenses to achieve the desired level of vision correction.

32. The method of claim 22 further comprising measuring astigmatic error with a lens in the series of lenses having a cylindrical power.

33. The method of claim 32, wherein the astigmatic error is measured by rotating the lens in the series of lenses having a cylindrical power.

34. The method of claim 33, wherein the lens in the series of lenses having a cylindrical power is a fixed pattern pixelated electro-active lens.

35. The method of claim 32, wherein the lens in the series of lenses having a cylinder power is a finely-pixelated electro-active lens.

36. An ophthalmic instrument capable of measuring an individual's conventional and non-conventional refractive error using an electro-active lens, wherein the conventional refractive error is one of hyperopia, myopia, astigmatism, and presbyopia and wherein the non-conventional refractive error is a higher order aberration.

37. The ophthalmic instrument of claim 36, wherein the electro-active lens is pixelated.

38. The ophthalmic instrument of claim 36, wherein the ophthalmic instrument works in association with a wave front analyzer.